



# P3, MS2P, MSP, 300 Ton, 800 Ton IFF Memphis April 2024 Infrared Survey Report



All electrical panels were scanned using a **FLIR T865** infrared camera. The following report only contains defects that were found during the survey. Below is our classification system for each defect included in this report. If there are any questions or comments, please feel free to contact us at any time.



employs a three-tier defect rating system:

**CLASS I**: A defect or defects are present that are likely to cause a problem in the long term (2-6 months). Should be addressed in the normal course of maintenance scheduling.

**CLASS II**: A defect or defects are present that are likely to cause a failure in the short term (less than 2) months). Should be addressed as soon as practical, on a high maintenance priority. Consideration should be given to increase monitoring frequency.

CLASS III: A defect or defects are present that make continued component reliability unpredictable and likelihood of secondary damage is high. Consideration should be given to an unscheduled shutdown to correct.

HI-SPEED tests and inspects industrial machinery and equipment and makes recommendations concerning maintenance and repairs based on its experience in the field of industrial repair and maintenance. The information contained herein is provided as an opinion only, not as a guaranty or warranty of the matters discussed herein.



#### **Thermal Heaters**

### **Equipment/Bucket ID**

P3 Breaker #58 7283



Li1		
Max	185.0 °F	
Avg	132.1 °F	
Min	86.0 °F	
Sp1	135.5 °F	



Fault Weak Theraml Heaters Defect Rating CLASS I



## **Recommendations**

IR image shows possible weak or undersized thermal heaters. Inspect heaters as time allows.



# Lug connections

### Equipment/Bucket ID

P3 Breaker #41



Measurements		
165.2 °F		
133.7 °F		
78.5 °F		
166.7 °F		
154.6 °F		
157.3 °F		
	nents 165.2 °F 133.7 °F 78.5 °F 166.7 °F 154.6 °F 157.3 °F	







# Recommendations

IR image shows a possible issue with the connections at the external lugs or internally within the lugs of the contactor. Check connections ensuring a tight and clean connection.



Lead connection

## Equipment/Bucket ID

P3 Breaker #2 7246



Measurements		
Li1		
Max	192.0 °F	
Avg	102.9 °F	
Min	78.5 °F	
Sp1	188.0 °F	







## Recommendations

IR image shows a connection issue with the middle lead connection. Check connection ensuring a clean and tight connection.



**Thermal Heaters** 

## **Equipment/Bucket ID**

P3 Breaker #9 6378



Measurements		
Li1		
Max	*288.0 °F	
Avg	*207.1 °F	
Min	91.8 °F	
Sp1	*260.5 °F	
Sp2	*261.8 °F	
Sp3	208.8 °F	



Fault Weak Faulty Heaters Defect Rating CLASS II



#### **Recommendations**

IR image shows possible weak or undersized thermal heaters. Inspect heaters as time allows.



#### Lead/lug connection

### Equipment/Bucket ID

MS2P 141 3304 Breaker



Measurements		
Li1		
Max	139.8 °F	
Avg	121.7 °F	
Min	111.3 °F	
Sp1	118.0 °F	
Sp2	136.7 °F	
Sp3	119.2 °F	



Fault Faulty connection Defect Rating CLASS I



## **Recommendations**

IR image shows an issue with the B phase connection. Ensure connection is clean and tight



#### Lead connection

### Equipment/Bucket ID

P3 #103



Measurer	nents	
Li1		
Max	104.1 °F	
Avg	85.1 °F	
Min	82.2 °F	
Sp1	102.5 °F	
Sp2	86.4 °F	
Sp3	83.9 °F	







#### **Recommendations**

IR image shows a connection issue with the A phase lead. Check connection, ensuring a clean and tight connection.



#### Lead connection

### Equipment/Bucket ID

P3 #107



Measurements		
Li1		
Max	122.6 °F	
Avg	97.9 °F	
Min	92.2 °F	
Sp1	103.0 °F	
Sp2	107.7 °F	
Sp3	121.1 °F	



Fault

Defect Rating



## Recommendations

IR image shows a connection issue with the C phase lead. Check connection, ensuring a clean and tight connection.



# Summary

File name	Created	Maximum temp.	Page number
FLIR0261.jpg	4/23/2024 4:34:22 AM	200.2 °F	3
FLIR0262.jpg	4/23/2024 4:40:11 AM	208.8 °F	4
FLIR0263.jpg	4/23/2024 4:55:14 AM	202.5 °F	5
FLIR0265.jpg	4/23/2024 6:44:59 AM	288.0 °F	6
FLIR0269.jpg	4/24/2024 4:31:25 AM	141.7 °F	7
FLIR0272.jpg	4/25/2024 4:22:51 AM	104.1 °F	8
FLIR0273.jpg	4/26/2024 5:04:15 AM	126.6 °F	9



This concludes our survey report. Please feel free to contact us at any time for questions or comments.

Thank you for your business,

Kerrin W. Maxuell



ITC Certified Level II Infrared Thermographer

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